

CLAIMS

5 1.- Roof module for vehicles, for installation on a vehicle body in which an opening has been made of approximately the same dimensions as the roof but maintaining the body cross members and rails, characterised in that it is composed of the original roof panel (1), with its end finish, a full conventional interior trim (2), normally of larger dimensions than the above-mentioned panel (1), as well as pre-installed interior accessories (3) (3'), while the roof panel (1) has dished recesses (10) at its front and rear edges which engage underneath the front (4) and rear (5) body cross members, covering them at least in part, said roof panel (1) also having at least one perimeter step (11) each matching up positionally with peripheral shoulders (9) provided both on the front (4) and rear (5) cross members and on the side rails (6) of the body, jointly making up a contact surface through which the roof module is joined to the body.

15 2.- Roof module for vehicles, according to claim 1, characterised in that its attachment underneath the body cross members (4) and (5) requires them to be closed at the top by means of panels (7) and (8) that cover them and provide the form and finish pertaining to the exterior body of the vehicle, replacing the part of the roof that is dispensed with and not covered by the roof module.

25 3.- Roof module for vehicles, according to claim 1, characterised in that the roof panel (1) has a through opening (12) for the fastening devices of some of the interior accessories (3) comprised in the roof module, so that the fastening devices of these accessories will pass both through the trim and the roof panel.

30 4.- Roof module for vehicles, according to claim 1, characterised in that at the side areas of the roof the trim (2) exceeds the dimensions of the roof panel (1), so that the interior accessories (3') positioned in that area are pre-installed on the trim (2) only and will be fastened directly to the vehicle body frame, without passing through the roof module roof panel (1).

5.- Roof module for vehicles, according to claim 1, characterised in that

to assist installation of the roof module on the body, the cross members (4) and (5) are provided with a series of holes that enable a series of locating elements (16) to be set in place which are arranged on the roof module and may be removed after the module is attached.

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6.- Roof module for vehicles, according to claim 1, characterised in that between the roof panel perimeter steps (11) and (13) and the cross member and rail perimeter shoulders (9) one or more beads of adhesive (20) are applied for bonding the roof module to the vehicle body.

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7.- Roof module for vehicles, according to claims 1 and 6, characterised in that at certain points of the roof panel contact steps mechanical fastenings (17) are provided to secure the roof module while the adhesive is setting and which may be either removed or left in place once the adhesive has set.

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8.- Roof module for vehicles, according to claims 1 and 6, characterised in that the roof module is fitted with stress transmitters (18) between the roof panel (1) and the trim (2), matching up with the perimeter steps (11 and (13) in the panel (1), elements (18) that enable force to be applied to the trim (2) so that the metal panel (1) sticks to the perimeter shoulders (9) of the vehicle body frame cross members and rails, without damaging the interior trim due to the pressure exerted.

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9.- Roof module for vehicles, according to claims 1 and 6, characterised in that at least one of the beads of adhesive (20) forms a continuous ring, so that it fulfils the added function of a sealing strip.

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